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The people of Bahrain are extremely law abiding and there is very little crime. A force of 300 uniformed police and 200 armed watchmen is responsible for the maintenance of law and order. The Police headquarters is the Fort to the south-west of Manama, this also contains the Traffic Department, the jail for short term convicts and the police barracks. There are police stations in various districts of Manama and Muharraq and in Hedd, Budaiya, Jaw, Sitra and elsewhere in Bahrain.

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Most of the Government buildings in Bahrain are constructed by the Public Works Department whose offices and yards are on the northern shore of Manama south of the Manama-Muharraq Causeway. This department is also responsible for the Manama town water supply and the upkeep of roads and bridges. Close to the Public Works Department, on the opposite side of the Causeway, is the power house and office of the State Engineer. Electricity was first installed in Manama in 1929, later it was extended to Muharraq. The Power Station now generates about 7½ million Kw. per annum.

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In addition to these departments there are others including the Transport Section, near the Police Fort, and the Agricultural Department which runs experimental gardens in Budiaya and Manama and gives advice to Bahrain agriculturalists.

THE RULING FAMILY OF BAHRAIN

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The Ruler :

HIS HIGHNESS SHAIKH SULMAN BIN HAMED AL-KHALIFAH, K.C.M.G., K.C.I.E.

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Sons of the Ruler :

HIS EXCELLENCY SHAIKH ISA BIN SULMAN AL-KHALIFAH.
HIS EXCELLENCY SHAIKH KHALIFAH BIN SULMAN AL-KHALIFAH.
HIS EXCELLENCY SHAIKH MUHAMMAD BIN SULMAN AL-KHALIFAH.

Uncles of the Ruler :

HIS EXCELLENCY SHAIKH ABDULLA BIN ISA AL-KHALIFAH, C.I.E.
HIS EXCELLENCY SHAIKH MUHAMMAD BIN ISA AL-KHALIFAH, C.B.E.

Brothers of the Ruler :

SHAIKH MUBARAK BIN HAMED AL-KHALIFAH.
SHAIKH ABDULLA BIN HAMED AL-KHALIFAH.
SHAIKH ALI BIN HAMED AL-KHALIFAH.
SHAIKH IBRAHIM BIN HAMED AL-KHALIFAH.
SHAIKH KHALIFAH BIN HAMED AL-KHALIFAH.
SHAIKH DAIJ BIN HAMED AL-KHALIFAH.
SHAIKH AHMED BIN HAMED AL-KHALIFAH.

Sons of Shaikh Abdulla bin Isa :

SHAIKH RASHID BIN ABDULLA AL-KHALIFAH.
SHAIKH ALI BIN ABDULLA AL-KHALIFAH.
SHAIKH HAMED BIN ABDULLA AL-KHALIFAH.

Some twenty years ago a Danish scientific expedition paid two visits to the Persian Gulf to report on the fish found in it. They discovered that there were over 400 species.

AGRICULTURE

Parts of Bahrain have always been fertile and very probably in ancient times more land was under cultivation than is being used today. The gardens of Bahrain are mentioned by many ancient visitors to the islands. The captains of Alexander's ships described Tylos, the ancient name of Bahrain, as "well-wooded and productive" while Idrisi, writing in the 12th century, says that the "capital of Awal (Bahrain Island) is Bahrain; this is a town well populated whose environs are fertile and produce corn and dates in abundance." It could be that the capital of Bahrain mentioned by Idrisi was Bilad al-Qadim, the description would seem to imply this.

Formerly the Bahrain gardens were irrigated from natural springs and surface wells, the water either flowing from the springs into the gardens or being lifted from wells to the level of the land by various forms of water scoops. The most commonly used is the Shaduf. A man stands near the edge of the well and draws up the water in a sheep skin bag attached by ropes to a counter-balanced pole. In larger wells donkeys or oxen are used, walking endlessly up and down a ramp pulling the water to the surface from where it runs down into irrigation channels. As the rainfall in Bahrain is almost negligible all agriculture depends upon irrigation.

In the 20's and 30's Major Frank Holmes drilled many artesian wells in Bahrain which completely changed Bahrain's system of irrigation. By introducing these wells into the island Major Holmes did much to increase the area of land which could be cultivated, but artesian wells turned out to be a mixed blessing, for in the following years so many wells were drilled that the water head went down and some of the gardens in the south of Bahrain dried up. Today this problem is being met by a government Water Committee which decides whether and under what conditions new wells may be drilled, it tries to ensure that the water resources of the islands are maintained at their present level or even increased by the utilisation of the many large springs of fresh water which lie under the sea around the shores of Bahrain.

The two commonest crops in Bahrain are dates and lucerne (alfalfa). the latter is often grown in the shade of the date palms where its vivid greenness provides a contrast to the brown and grey-green of the date palms. There is little good fruit in Bahrain although a certain number of fruit trees are cultivated, these include citrus, tamarind, pomegranate, fig, guava, terminalia (indian almond) mango, bananas, grapes and kanard (a small apple-like fruit). European vegetables are grown in the cold weather and other ground crops include sweet potatoes, melons, tomatoes, ladies fingers, egg plants, onions, garlic and pumpkins.

of colour and Arab life, and large modern stores stocked with every type of goods from America, Europe and the East. The spice bazaar, the second-hand bazaar behind the Municipality and the shops of the metal workers are typically oriental ; the stores in the larger streets with plate glass windows and fixed prices stock a wide range of modern goods which are generally cheaper than elsewhere in the Gulf owing to the low customs duty. Apart from pearls, mother-of-pearl, gold and silver thread embroidery and model dhows there are few purely local products for visitors to buy. The best way to see the bazaar is on foot, it provides innumerable subjects for photos and neither here nor anywhere else in Bahrain is there any objection to the taking of photos. 366 443

To the south-west of the town is the Qalat ad-Diwan, beyond it, along Awal Road, is the Isolation Hospital, the Public Health Department and a number of blocks of flats. Opposite them is a large garden with two miniature lakes, known as the Water Garden ; this is a popular place during summer evenings. Beyond the flats is the Mental Hospital. It is probable that within the next few years this area will undergo extensive development. 361 517 368

To the south-east is the district of Manama known as Quadabiya, up to a few years ago an area of barren sand and swamp land where mosquitos bred but which today is rapidly developing into a residential and entertainment centre. Going along Belgrave Road one passes the Secondary School and Hostel, the Palace and, where the road joins Jufair Road, many houses and bungalows occupied by employees of European commercial firms. Jufair Road then passes the Race Course and Gymkhana Club and terminates in the suburbs of Umm a-Hasan and Jufair ; at the latter are the headquarters of the Senior British Naval Officer, Persian Gulf and H.B.M.'s Political Residency. 361 368

In the modern districts of Manama there are many wide and well surfaced roads, lined with tree-shaded pavements, while here and there in the town waste plots of land have been made into little gardens with benches, lawns and fountains. Along the water-front runs Sea Road, joining the Muharraq Causeway with the State Hospital at its western end. The Muharraq Causeway took ten years to build, for it served as a relief project when there was unemployment in Bahrain. The Shaikh Hamed Swing Bridge was completed in 1942 by Messrs. Holloways Bros. Many of the principal buildings and offices in Bahrain are on the Sea Road and Prior Road, which is an inland road running parallel to it. In former times the sea extended far into the town, south even of Prior Road, but during the past twenty-five years much of the sea-shore has been reclaimed. In Muharraq similar work can be seen in progress, but in an earlier stage of development. 363 [491] [653]

In the evenings, the busiest part of Manama is Belgrave Road and the part of Quadabiya to its east where there are four cinemas and many coffee-shops, as well as football fields. At sunset the people of the town can be seen strolling along the road to Jufair, or sitting on the benches that line the pavements, later returning to the cinemas 517 [368]

MUNICIPALITIES

MANAMA MUNICIPALITY

(From the report of Mr. Mohamed Saleh Shater, Secretary of the Manama Municipality)

At the beginning of the year, owing to sectarian differences between Sunni and Shia members in 1371 which caused the resignation of the Shia members, Municipal affairs were being dealt with by a committee of Sunnis. This was the situation until the middle of the year when the Government succeeded in persuading the Shia members to resume their duties on the Council. They returned on the understanding that they would serve for only one year after which an election should be held.

During the latter part of the year the Council functioned in a more or less normal manner; by shelving all matters which might cause controversy between the sects the Council succeeded in performing its duties without serious differences. The situation, however, was not satisfactory.

Finance. The Financial Committee which drew up the budget was formed from the temporary Sunni committee. Estimated revenue for 1372 was Rs. 7,04,000 and expenditure was assessed at the same figure. The actual revenue exceeded the estimate by Rs. 1,16,000, the expenditure was Rs. 61,000 more than was expected and at the end of the year a surplus of revenue over expenditure amounting to Rs. 61,000 was added to the Reserve which was then Rs. 2,83,000.

The increase in revenue was due to a great extent to higher receipts from house and shop taxes. There were many new buildings in the town and higher rents were charged for existing buildings, both for houses and shops. House taxes and shop taxes on buildings which are leased are charged on a percentage basis of the rent. Taxation on houses which are occupied by their owners is extremely low in comparison with that of rented premises. A large proportion of the rented houses are occupied by foreigners and most of the houses in which the owners live are occupied by people of the country.

During the year the Municipality sold land to the public at the price of Rs. 35,200 and it purchased a new fire engine for Rs. 48,000. The Government presented to the Municipality a motor-driven trailer fire pump and jeep, a rubbish carrying vehicle and a gully emptying vehicle.

Municipal activities. Town cleaning was effected during the year by two trucks and 30 donkey carts, town rubbish was utilised to reclaim a large portion of sea on the shore at Hora, opposite Cable and Wireless premises. The method of employing donkey carts to carry town refuse is not a satisfactory one. An order was placed in England during the summer for small rubbish-carrying vehicles which can be used in narrow streets.

A number of roads in the town were metalled, the area dealt with was about 380,000 square feet on which was used 480,000 cubic feet of stone and 105,000 cubic feet of sand, the whole costing approximately Rs. 1,76,000.

Some progress was made in widening streets in the bazaar area, 112 new street lights were installed and more trees were planted on the roads, unfortunately each year a number of trees are destroyed, by wind or sometimes by rain which when it falls strongly seems to kill both plants and trees.

There was much building activity both in the town and on the outskirts of the town, numbers of small houses were built for occupation by their owners and more European style bungalows and flats were built for letting. House rents are excessively high, landlords expect to recover the cost of their property in less than ten years, so building houses for letting is at present a profitable investment. However, so many houses are now being built that it seems possible that in a short time there may be more houses than tenants.

During the year permits for new buildings were issued by the Municipality for 144 stone houses and 100 barasti huts and permits for repairs and additions to 186 shops and 717 houses were also granted.

1 [A.D 1951-52 - Analyst]

PUBLIC WORKS DEPARTMENT

(Report by Mr. S. Hills, Director of Works)

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For the first time for many years the Department failed to show any increase over the preceding year in its expenditure, or—more important—the volume of work carried out. This was due entirely to the failure to increase the size of the supervising staff commensurate with the obligations of the Department. Despite the lack of any expansion, however, the year's figures indicate the P.W.D. had another very busy and productive year. An average number of 1,350 men were employed daily which shows that the Department was still second only to Bahrain Petroleum Company in being the biggest economic factor in the lives of ordinary people of Bahrain. As previously, P.W.D. carried out far more work than any of the local contractors, and continued to set a standard for local development.

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Weather conditions were exceptionally favourable for the Department's activities. The winter months were unusually mild and there was no severe storm at any time during the year. The summer was good, although there were one or two unpleasantly hot and humid spells in July and August.

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Costs continued to rise, but the increase was not so marked as in the two previous years. Indeed, there was a welcome drop in the prices of various imported stores, but locally produced stores—which form so big an item (about 26 per cent.) in the Department's total costs—became considerably dearer. As the cost of these is almost entirely one of labour and transport, it would not have been surprising if this increase had occurred a year or so ago. There was some small rise in labour costs, caused by increased rates being paid to better-grade tradesmen—the basic rate for coolies and second-grade tradesmen remaining the same. This is really a good thing, as the standardisation of wage rates is surely one of the most lamentable features of the modern trend of development ; and a man should be encouraged to expect to be paid according to his ability. As before, the increase in cost was most marked in the smaller works and in maintenance. A feature out of the Department's control, which added to the rise in costs was the quite deplorable shipping situation which developed towards the end of the year. Many ships, carrying stores for Bahrain, failed to discharge their cargos, but overcarried them to Basra where they were transhipped and taken all over the Gulf (and at times as far as Aden) before they were eventually off loaded at Bahrain. Many works were delayed in consequence, with an inevitable rise in costs.

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This question of costs is closely linked with labour and supervision. Labour troubles were rather less than in the last year or two. In the early months of the year, the strength of carpenters, which had fallen so low at the end of 1371, was again built up ; and maintained throughout the year. The most serious shortage, in the year under review, was in good decorators. The standard of painting throughout Bahrain is very poor indeed. The local idea is to apply paint as thickly as possible, but never to worry about first preparing the work, and still less if much of the paint goes on the floor, window glass, or nearby furniture or fitments. P.W.D's annual commitment for decorating is now so large that the poor standard of performance is becoming a serious matter ; and as far as new work is concerned, the better standard of construction now being achieved is all too often spoilt by the indifferent standard of finish. There can only be one answer—constant and exacting supervising, and the Department was not, this year, in a position to give this.

Although the labour strength was just maintained at a level adequate to meet committments, yet the position was always delicate, because of the greatly increased amount of work being done by local contractors, who were only too ready to lure away good P.W.D. men by paying higher wage rates.

During the year, one man, Mohamed Bussager, foreman fitter, went to England for six months, under the auspices of the British Council. He greatly benefitted by his visit. It is hoped that more men may be sent on similar courses during the next few years.

653 As usual, the activities of the Department[1] were diverse and far-reaching. The chief "new" construction works consisted of the completion of flats for investment at Muharraq and Rafaa Road ; offices in Barrett Road ; quarters for masters over the Technical School Workshop ; new private wards at the Hospital, the carrying on of work to the new Palace and additional quarters for masters over the Technical School itself, and the starting of a block of Staff Quarters at Quarantine site, Quadabiya. Very extensive works were also carried out for Customs ; four more stores sheds being erected, a large area of sea reclaimed, and a new jetty for local craft being started. For this Department, several other smaller, but important, works were also done. A larger amount than usual of simple construction work was let to contractors, including 36 workmen's houses, 43 houses for the Police, and various village dispensaries. It is argueable if the results are really satisfactory, and although money may be saved, it is possible only at the expense of a good standard of work. As usual, much work was done for the Electricity Department ; and agricultural development was greatly assisted. The amount of maintenance and decorating was, needless to say, higher than ever before ; and it has to be admitted that over this the Department failed, to some extent, to give a really good service. Fair service was given, but often the quality of work was indifferent. The construction of new roads and pavements, and the maintenance of those existing was energetically carried on. The main water supply was operated very successfully. A much larger amount of water was supplied—both to paying and non-paying consumers—and the accounts of the Water Supply Department (given later) are really encouraging.

653 177 342 Every year the Department tackles a few jobs of unusual character. Of chief interest this year may be mentioned the two large roofs of the new Palace. These are of Mansard design, each 90 feet long, and with a clear span of 32 feet. Sixteen timber trusses were made, hoisted, and placed in position, 26 feet above ground, thanks to the invaluable assistance of the Bahrain Petroleum Company who kindly loaned a mobile crane with a 70 feet jib. The actual time spent on hoisting and fixing was just over twelve hours. Purlins and common rafters were fixed, and the roofs were then close-boarded, felted, counter-battened and battened. Later, green glazed pantiles were fixed. This was the first roofing job of its kind ever done in Bahrain; and it was gratifying to note how quickly the local tradesmen learned to tackle the work. The trusses were well and accurately made ; and the tiling—although done during Ramadhan and in very hot weather—took rather less than three weeks, and the result compares well with tiled roofs constructed anywhere.

000 In conclusion, 1372 has been a year of fair progress, but with some disappointing features. Much was satisfactorily accomplished ; but some results fell short of what is desirable. The very rapid expansion of the Department in the preceding five years is beginning to put a big and increasing strain on its organisation. Such success as there has been this year is largely due to excellent work done by Mr. L. Harris, Assistant to Officer-in-Charge, P.W.D. (who not only ran the Water Supply Department so well but also took charge of P.W.D. for three months at the end of the year) ; Mr. Ahmed Darwish, Office Superintendent (deservedly upgraded from Head Clerk during the year) ; a small number of hard working overseers, foremen, store-keepers and clerks and a nucleus of well proved tradesmen of long service.

Further commitments for P.W.D. are obviously bigger than ever before. To assist in meeting these, some addition to British personnel has been arranged. Extensions to the offices were built late in the year, to provide accommodation and to relieve the congestion in the old office. It is hoped that with the new staff and as a result of more local men taking courses in England, the Department will still prove capable of meeting its obligations and maintaining its tradition for good work and efficient service; and that it will continue to set an example *of good workmanship and decent* and appropriate design.

[1] [The Public Works Department -- Analyst]

651 439 was imposed on luxury articles, liquor, and tobacco at the end of the previous year. From 1352 onwards the revenue increased steadily, and at the end of the present year, 1356, it will probably reach the high level which it attained in 1346.

The decrease in revenue resulting from general trade depression in Europe, and particularly the slump in the pearl trade, was caused not so much by a reduced amount of imports but by a decrease in the price of commodities which continued for several years. The cost of rice, flour, and coffee became lower each year during the depression, and importation of comparatively expensive European cotton goods diminished as cheap Japanese goods increased. The shortage of ready money for several years, and the inability of the local Arabs to spend much money on clothes was the greatest stimulus to Japanese trade in the Gulf, and especially in Bahrain. If the spending power of the people had not been so restricted it would have been very much more difficult for the Japanese to monopolise the trade in piece goods and fancy goods. Though the customs collections declined owing to the low value of imports, the cheapness of goods enabled many people to live who would otherwise have found it difficult to exist. I give a table showing the prices of various commodities in different years. The amount of imports, etc., are published yearly in the Bahrain trade report.

● 653 **Customs Improvements.** The customs pier and the import shed were built about twenty years ago; the pier shed was built in 1924. In 1925 a trolley line system was laid down to facilitate removal of cargo from the pier head to the sheds and to the bazaar. The trolley line resulted in doubling the quantity of daily cargo removals.

In 1927 a small mole and three small docks were constructed on the east of the pier. The mole was too narrow to be of much use, and the docks, which were dry at low tide, were also too small for general use. In 1937 the mole was widened and the new customs house was built on the site of the docks and a large piece of land in front of and on each side of the customs house was reclaimed. The additional area has partially relieved the congestion on the pier, where the area for storing cargo was insufficient.

The lighting of the port was improved in 1931 by the erection of a powerful light on the customs pier, which can be seen from the outer (white) buoy. When electricity was introduced, standard lamps were erected on the pier, enabling work to be carried out at night which was previously done under considerable difficulties. In 1933 the Gray Paul Beacon was lighted with a red flash light which affords great assistance at night to lighterage of cargo. A five-ton crane was purchased in 1930.

505 **Steamship Lines.** In 1924 the port was served only by the British India Steam Navigation Company Limited, with a very occasional Strick Line steamer. In 1925 the first Hansa Line steamer made its appearance. These two lines, and the Strick-Ellerman lines, now call regularly at Bahrain with direct cargo from Europe. In 1934 the Yamashita line, and in 1936 the Mitsui line, commenced regular callings at Bahrain.

In 1931 the British India Steam Navigation Company Limited began the weekly calling here of their subsidiary down-mail which had previously called every fortnight. In October 1932 the first Imperial Airways liner called at Bahrain, and there is now a bi-weekly air service east and west, a service which is expected to become more frequent.

With the development of the Bahrain Petroleum Company, Sitra became the port of oil tankers, and on occasions special permission has been granted for cargo boats to discharge Bahrain Petroleum Company's cargo at Sitra. On these occasions any ordinary cargo not intended for the Company is conveyed by sea to the customs pier in Manamah. Although the Sitra anchorage is more sheltered than the Manamah anchorage, it is not proposed to develop Sitra in any way as a regular port. Customs officials are stationed at Sitra and attend on the aerodrome when ships or aeroplanes are in port.

504 **Future Improvements.** An improvement to the port which has been under consideration on and off for many years is the extension of the existing pier to the edge of the deep water, which is about 400 yards distant from the pier head. Even if the extension were only a narrow one, it would be of great convenience both for passengers

5: Bahrain G-5 (1926-1937) 1937 MZ2 Bahrain MZ2

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Judicial Legislation.

From time to time the Bahrain Government has issued proclamations which have become regulations guiding the actions of the Bahrain courts. Some of these orders, such as the following, are of considerable importance.

Diving Regulations. Several different proclamations on this subject have been issued embodying the various changes and conditions which resulted from the diving reforms.

Wakils. A proclamation was issued laying down the conditions under which Wakils should be permitted to appear in courts and specifying their rate of fees. This became necessary after criminal charges had been proved against certain Wakils who had cheated their clients.

Mortgages. An important proclamation was issued to the effect that no property could be mortgaged unless it had previously been registered on a Government title deed.

Appeals. A regular system of filing appeals from the various Bahrain courts was issued by proclamation.

Statute of Limitation. The period was fixed at ten years, and the same period for acquisition of land by squatters' rights.

Liability of Government Servants. Liability of Government servants was defined in a proclamation forbidding the public to make loans to Government servants while employed by the Government except at their own risk.

PUBLIC WORKS

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The Bahrain Government has never had an independent Public Works Department. All buildings, roads, causeways, etc., etc., have been constructed under the supervision of Khan Saheb Mohomed Khalil, the Superintendent of the Land and Survey Department, which has combined the functions of Land Department and Public Works Department. This, in the past, has been a satisfactory and economical arrangement, but in the future, owing to probable expansion, it is proposed to separate the two departments and to start a regular Public Works Department. The Bahrain Government has, during the last ten years, carried out some large and important public works, including the Manamah-Muharraq causeway and the Naval base at Jufair, and the plain, dignified style of the buildings constructed by the Government has greatly improved the appearance of the town of Manamah.

The first important public works were the Palace, the Government offices, and the Manamah sea road. These works were completed during 1925-26 and were undertaken by an Indian contractor. The construction of the sea road was satisfactory, but time has shown that the palace and the Government offices were badly built. Large sums of money have had to be spent on repairing and propping up the Palace, owing to its inadequate foundations, and various defects in the Government offices became apparent after a few years. After this experiment, all building, with the exception of some unimportant work in the villages, has been done by the Government directly. Local building contractors do not exist, and the experiment of employing a foreign contractor proved a failure.

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Roads.

Since the Bahrain Petroleum Company commenced its operations in Bahrain the Government has been saved much money and labour as the Company maintains and builds roads in all parts of the concession area as well as keeping up the main road from Manamah to Rafaa, which is the most important road in Bahrain and which formerly cost the Government a considerable sum every year. The Government now confines its road work to areas in which the Company is not interested. The most important recent work is the new road from Jedhafs to Budeya which, instead of making a long detour round the coast, goes straight across country, so that Budeya can now be reached from Manamah in about twenty minutes. This will make it more easy to develop Budeya, where a school is being built. A police post was established last year, and the Government has recently purchased a large derelict garden, which is now irrigated from an artesian well, and is being put under cultivation.

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In the last ten years several new roads have been made by the Government, linking up existing roads, such as the road from Sehlah to a point on the Budeya road opposite the Portuguese Fort and the road from the top of Rafaa hill to East Rafaa, which used to be inaccessible except from down in the valley.

There is still need for several more roads, especially for one connecting Aali with Manamah, which will take the donkey traffic which comes into Manamah from the villages around Aali. The main road to Radm al Koweri cannot be widened any more, except at great expense, as it is bordered on both sides by valuable date gardens, and the mixture of motor traffic and laden donkeys, which disregard all traffic rules, is a constant source of accidents. The country people themselves, through the Shia Wakf committee, have asked that a donkey track should be made so that they need not use the motor road.

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Buildings. Suk al Khamis Mosque.

In 1346 (1927-28) the ancient mosque at Suk al Khamis, which was in a dangerously dilapidated condition, was restored by the Government, which at the same time straightened out the main road which previously made a wide detour. Earlier attempts to bring the road past the mosque had been opposed by the Shia villagers, but because they were pleased at the Government's action in repairing the mosque, no objections were made about the road.

This mosque was described by Von Ernst Diez, who visited it in 1914, as being a mosque of the year 740 H. (1339-40). The ornamentation of the wooden pillars and cross beams are of particular importance and interest. Over twenty years ago all the wood in the mosque disappeared. During the last few months I have found, and been able to recover from a neighbouring village, several of the beams and large pieces of wood containing the carvings which were described and illustrated by Diez and which he ascribed to the ninth or tenth century.

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Idari Water Channel and Mosque.

During this and the following year the Government, at the request of the landowners whose property is irrigated from Idari spring, built a cement water channel from the main spring to the high road, a distance of about 1,200 yards. The cost of the work, Rs 21,000/-, was paid by the owners of the gardens. At the same time the Government built a small mosque, on the site of an older one, on the bank of the pool. During the last year, further improvements have been made at Idari, and a quantity of flowering trees and bushes have been planted there. The pool during the summer is visited by thousands of people, who bathe there.

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Manamah School and Workshop.

The school was begun in 1347 (1928-29) and completed in the following year. The cost of the Manamah School, and a small school which was built at the same time at Suk al Khamis, was Rs 39,000/-. There are ten class-rooms in Manamah, capable of accommodating about three hundred boys, and a large hall which has on one occasion held six hundred people. The building is of stone and cement and is on one floor.

During the present year a workshop has been built close to the school on the opposite side of the road. This became necessary as the carpentry and engineering classes made so much noise when working in the main building that other classes were disturbed.

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Barracks, Police Station.

In 1353 (1934-35) a new barrack room was built in the Fort in place of some of the old rooms, which became uninhabitable. The original building was made of stones fastened together with mud, plaster, and covered with a thin coating of lime plaster. Every year for the last ten years portions of the main wall of the Fort have fallen down, and most of the old quarters inside the Fort are in a dangerous condition.

A second barrack room was built in 1936, and also a new armoury and three motor garages, and in 1937 the north-west tower, which had fallen in, was rebuilt and part of the walls were faced with cement and thoroughly repaired.

The larger of the two barrack rooms, which is 114 feet long and 22 feet wide, with three doors and fifteen windows, and also clere windows, accommodates forty men and cost Rs 7,300/-

653 In 1353 (1934-35) a police station was built at Hedd, with a small office, men's quarters, and a lock-up enclosed by a wall, and during the same year a similar police building was built at Budeya.

New Customs House. During 1937 several important works were carried out. A new customs house, with a flat above the offices, was built on the shore, immediately east of the pier. The building and the reclaiming of a large area of ground which was required to extend the customs wharves cost Rs 66,000/-.

The new offices are light, airy, and convenient, and the building has done much to improve the appearance of the water front.

In the customs square a round garden with a fountain in the centre has been made, where it is hoped eventually to grow evergreen shrubs, grass, and flowering bushes. The circular garden in the centre of the square was made partly as a means of ensuring the one-way traffic rule, which is necessary owing to the large amount of motor traffic in this neighbourhood, and partly for the purpose of improving the appearance of the square.

Shops. Three shops, which have been rented on a long lease as motor showrooms and office, were built behind the old customs house on the site of some rumble-down sheds on the west side of Barrett Street. The Import Yard shed, part of the customs premises, occupies most of one side of this street. This shed, since the construction of the pier shed about twelve years ago, is never filled to its capacity, and space along the road to contain a line of shops could be spared from the shed. As this is now the chief shopping centre in Bahrain, shops in the street are a profitable proposition.

Palace Wall. During 1936 a wall, stone base and pillars, with wooden railings, was built in front of the Palace, which has greatly improved its appearance as well as making it possible to keep out crowds from in front of the Palace on public occasions.

Law Courts. At the time of writing this report, the new Law Courts are in the course of construction. The building is on a piece of ground which has been reclaimed and which was until recently water, inside the Manamah sea road, between the properties of Kanabi & Co. and Gray Mackenzie. The offices and courts are round three sides of an open courtyard, and when the building is completed all the different courts, with their records, will be housed in one place instead of being scattered in various parts of the town in Government buildings and in hired rooms. Each courtroom has a record room and office opening out of it.

653 347 **Bazaar Buildings.** In the winter of 1936 a serious fire occurred near the Manamah Municipal Buildings which entirely destroyed the 'Suk al Arbaa,' an extensive bazaar, including the vegetable market and a number of shops belonging to H.H. Shaikh Hamad. Although much damage was done, the fire was a blessing in disguise, as His Highness decided to abolish the dangerous and insanitary type of buildings and to build new markets and shops. This work was undertaken, at His Highness's expense, by the Bahrain Government. Some shops were built, and three large iron sheds were erected which are to be used for selling fruits, vegetables, and lucerne. The new bazaar is sanitary and up-to-date, and a water supply has been laid down which makes it possible to sluice the floors of the sheds every day and to wash out the shops. A pipe has also been laid on to the meat market so that it, too, can be washed out daily. In addition to His Highness's shops and sheds, two of His Highness's sons, who owned land in the bazaar, have built lines of new shops in place of the matting sheds which were there previously.

Through the kindness of the Manager of the Bahrain Petroleum Company, one of the Company's English staff has been allowed to superintend the erection of the steel sheds, and worked on the job for some months. This new bazaar is one of the most noticeable improvements in Manamah which has occurred during recent years.

5: Bahrain G-5 (1926-1937) 1937 MZ2 Bahrain MZ2

In addition to these major works, a number of smaller buildings have been made, such as garages, dispensaries, extensions to existing buildings, quarantine station, small country schools, bridges, and water channels.

In all buildings, local material is almost entirely employed. All buildings are made of coral stone, which is cut from the bed of the sea and brought to the shore in boats. Gutch plaster is obtained locally, and also lime, and the wood, although imported, is purchased from local merchants. Steel beams are bought in Europe, and latterly metal fittings have been imported direct from England.

Jufair Naval Base. At the request of the naval authorities the Bahrain Government undertook the construction of the Naval base at Jufair. The work lasted from May 1935 till May 1936. The most important buildings were a pier on the southern side of the point, 600 yards long and 10 feet wide, a canteen building with two billiard rooms, an officers' building, clerk-in-charge's house, store, Indian staff quarters, etc., etc. The Bahrain Government, in addition to the building, installed a complete water supply and drainage system; this part of the work was done by the State Engineer. All the houses were built in the usual style, of stone and cement, but tiles, imported from Busra, were used for flooring.

The cost of the most important buildings was approximately as follows:

Pier	Rs 12,800/-
Canteen	23,200/-
Clerk-in-Charge's house	11,400/-
Officers' building	18,800/-

The above figures do not include the cost of electric and water supply installation.

Manamah-Muharraq Road. For many years it had been the wish of His Highness Shaikh Hamad to build a road across the sea, connecting the towns of Manamah and Muharraq, which are separated by a mile and 1,166 yards of sea, much of which is dry at low tide. In the past, connection between the two islands was only possible by boats, and on some occasions, during very low tides or in abnormally rough weather, it was almost impossible to cross the gap. Muharraq town is almost as large as Manamah, and the island contains a number of villages as well as the town of Hedd, which is the third largest town in Bahrain. When Muharraq was used as an aerodrome, the need for easier communication between the two islands became more necessary. When the project of building a road across the sea with some sort of bridge over the deep channel was first discussed, many people considered and said that it was an impossible proposition.

In 1348 the causeway was begun. It was estimated that the cost of completing it, not including the bridge, would be Rs 6,00,000/-. It was built of coral stone, with outside walls of murubas stone and a centre filling of fahri stone surfaced with mud, and provided with culverts at every 100 yards. The width of the road is 32 feet, and the maximum height from the sea bed at the deepest place is 13 feet.

The causeway, without the bridge, was completed and opened for motor traffic at the end of 1936. Work on the road has not been carried out continuously, but during the seven years of its construction when money has been available the work has been continued, and only at times other than the diving season, when much unemployment existed. The total cost of the road from Manamah to the edge of the deep channel and from Muharraq to the channel is Rs 1,99,800/-. Of this amount, Rs 4,000/- was subscribed by a merchant of Muharraq as a contribution from 'thilth.'

It is now possible to reach Muharraq in less than ten minutes, at all times of the day or night and in all weather conditions. There are motor bus services to and from the end of the causeway, and when arrangements have been made for crossing the channel, which are now under consideration, there will be a bus service to Muharraq, Hedd, and other villages on Muharraq island. Already the road has caused an improvement in property values in Muharraq, and people working in

5: Bahrain G-5 (1926-1937) 1937 MZ2 Bahrain MZ2

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Manamah in shops and offices who had to leave their houses in Muharraq and live in Manamah owin to the difficulty of crossing to and fro are now able to live in Muharraq and to cross the chann and come into Manamah by bus.

In addition to the convenience of the road, it has provided work for thousands of men, wh cut stone from the sea and bring it ashore in boats during times of unemployment. Everythin in the road, except the cement in the parapet and the wooden beams in the culverts, is produce locally. In my opinion, it can be reasonably supposed that not less than 75% of the money expende has been spent in the Bahrain bazaars by the labourers who earned the money and has stimulate local trade.

LAND REGISTRATION

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Survey. This department began its work about twelve years ago, and for the fir six years it was mainly occupied in making a survey of the villages an cultivated area in Bahrain. The work, with the exception of two small areas, was completed befo the financial depression necessitated reduction of the staff of the Land Department, which pu an end to the survey.

When the survey first began it met with considerable opposition from the Shia villagers, wh were suspicious of the Government's intentions, but after a short time the object of the wor was appreciated by the people and no further difficulties were made.

The results of the work are contained in a quantity of maps showing gardens with the boundaries with reference numbers to registers which contain particulars of owners, water right and details about the property. At the time of the survey, information about boundaries, wate rights, etc., was obtained from the landlords and from their tenants. Usually in Bahrain the landlord know very little about their gardens and rely almost entirely on the tenants for information abou boundaries and water rights. In cases where original documents existed these were examine and checked, but in a great many cases property owners have no title deeds. Before completin the records, the Land Registration Department published a proclamation calling on the publi to notify the department if the particulars for registration were not correct.

In addition to the survey of villages and gardens, the department made a survey and a larg scale map of Manamah town, and also Hedd and Muharraq; the work in the case of these town did not include registration of rights. The map of Manamah was made when the electric schem was first considered and the map was used for planning the layout.

Reports on Land Cases. In addition to general survey work, every year the department provide plans and reports to the courts on cases of land disputes. During som years several hundreds of reports have been made, and these report are usually the decisive factor in settling cases. The Land Department deals with cases in th Bahrain courts and also in the Agency courts.

Registration of Sales and Titles. The registration of property in Bahrain is not compulsory, but ever year there is an increase in the number of people who apply for th registration of their houses or gardens. The public now realise the valu of a Government title deed, and they appreciate the fact that when the title deed has been issue nobody can contest it. The only people who during the last ten years have attempted to set asid a Government title deed are certain members of the Ruling Family. Their claims failed, but if they had succeeded the valuable work of the Land Registration Department over many year would have been seriously affected.

Mortgages. The registration of sales of property was made compulsory in 1929, an in 1931 a proclamation was issued to the effect that no claim for foreclosur of a mortgage on immovable property would be heard in the courts unless the property had bee previously registered on a Government title deed. The result of this is that nobody can mortgag property unless he holds a Government title deed for it. The actual transaction of the mortgag

5: Bahrain G-5 (1926-1937) 1937 MZ2 Bahrain MZ2

871 which caused considerable resentment among the Shias, although at that time the proportion of Shias at the Government schools was much lower than it is now. If more care had been given to the selection of the candidates, this experiment would have been more successful. The boys remained at Beyrout for two years; a longer course would have been more useful to them but, mainly owing to financial reasons, the Government decided not to extend their time.

Some years have now passed since these boys returned to Bahrain, and the result of their education can now be seen. In my opinion, it was successful in the case of three of the boys, moderately successful in the case of three, and a complete failure in the case of one boy. If the boys had been younger when they left Bahrain, I believe that the experiment would have been a complete success.

871 644 **Education of the Ruling Family.** In 1925, Shaikh Hamad allowed two of his sons to go as boarders to the American Mission school in Basrah. They stayed there for one term and did not return to school.

In 1930 a tutor was obtained from India to teach Shaikh Hamad's younger sons. He was well recommended and highly qualified and had previously been in charge of an Indian princeling. Although the tutor worked hard under difficult conditions and did his best to teach his pupils, it was soon apparent that his employment was a waste of his time and of the Government's money. The tutor lived in Shaikh Hamad's house, but the boys were disinclined to work and so did nothing. It was impossible to bring any compulsion on them to do their lessons. The experiment was a complete failure and, after completing one year, the tutor's agreement was not renewed.

871 185 **Future Development of Education.** There is danger in the creation of a class of semi-educated young men in Bahrain who, because they have a little learning, regard themselves as too superior to do manual work and who will become too many to find employment of a clerical nature. The people, however, especially the Shias, are urgent in their demands for increased education, and more schools, and in reply to this the Government intends to open more small country schools in the villages. A knowledge of reading, writing, and simple arithmetic is all that is needed by boys from the villages, most of whom will eventually become divers, cultivators, and fishermen. In these occupations, school education is unnecessary, though for divers and fishermen a knowledge of figures is some assurance against being swindled.

Boys who attend the town schools in Manamah and Muharraq are mostly sons of shopkeepers, merchants, and pearl traders, and many of them enter their fathers' shops and offices, where they benefit from a knowledge of accounts, book-keeping, and the more advanced education which is given at the two big schools.

If the newly started technical classes are successful, the Government will develop this experiment and, if possible, introduce more subjects which will provide lucrative employment for trained boys when they leave school. It should be possible for boys who have learned carpentry, etc., at school to secure employment with the Bahrain Petroleum Company in place of some of the many foreign artisans who are now employed by the Company.

ELECTRIC DEPARTMENT

377 ●653 **Original Installation.** The possibility of introducing electricity in Manamah was first considered over ten years ago, and for some time funds were set aside for the purpose; it was not, however, till 1928 that any action was taken by the Government. That year the services of Mr. Stevenson, electrical inspector in Sind, were obtained in an advisory capacity and a scheme was prepared by him in Bahrain, together with plans for the layout and a rough specification. Bahrain was then in a prosperous condition, and it was estimated that the initial load would be not less than 2,000 lamps and 200 fans. The people in Manamah were anxious to form a public company, but after consideration this suggestion was dropped, and eventually it was decided that the scheme was to be undertaken by the Government and the Manamah Municipality.

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A number of well-known firms were invited to tender, but all seemed to consider Bahrain too far off the beaten track, except Callender's Cable and Construction Company who, on their own initiative, sent a representative to Bahrain to examine the prospect. In the summer of 1928, I and Mr. Stevenson discussed the scheme with several electrical engineering companies in London, but none of them were interested. Finally, Callenders' submitted a complete tender, which was accepted by the Government in the spring of 1929; the tender was for £20,607/- and included the power-house, plant, and the installation in Manamah town. In September, 1929, Mr. Jordan, Callenders' resident engineer, arrived, and the power-house was opened and the supply commenced on 11th May.

Unfortunately, during the time between the decision to install electricity and the completion of the work, the prosperity of Bahrain declined. An abnormally bad year on the pearl market resulted in general trade depression and a falling off in revenue. Only 1,200 lights and 200 fans were ordered or installed, and this included street lighting and lights and fans in Government and Municipal buildings.

Muharraq Extension. The following year it was decided to extend the electric power to Muharraq. The people of Muharraq protested, with some justification, that they should be allowed to share in the benefit of the scheme which had been paid for out of public funds, to which Muharraq, almost as large a town as Manamah, had contributed a large proportion. Callenders' submitted a tender which was accepted by the Government after obtaining the advice of the Chief Engineer, Iraq. The final amount was for Rs 53,000/-. The extension consisted of a high tension tubular pole line (3,300 volts) along the route of the causeway which was being built between Manamah and Muharraq, with a submarine cable across the deep water channel.

Share of Municipalities. The Manamah Municipality had paid 20% of the original capital expenditure, and when Muharraq was added to the scheme the Muharraq Municipality contributed a similar share: 20% of the original expenditure and also 20% of the Muharraq extension, to which Manamah also contributed its share of 20%. The cost of the completed scheme was divided between the Government and the two Municipalities, the Government having 60% interest and the two Municipalities each 20%.

Progress. At the end of 1349 (May 1931) the total number of houses wired was 222; 1,497 lamps and 268 fans had been installed. There was a total loss during the year of Rs 27,000/-, but out of this sum Rs 22,000/- represented depreciation, which had perhaps been assessed at an unnecessarily high rate. During the following year there was a slight increase in consumers, but the result of the Muharraq extension was disappointing; 280 points were connected during the year. Electric power was used when an ice plant, which had been acquired by the Manamah Municipality, was installed in the power-house; a reduced rate was charged for power used in the plant as it was regarded as a public utility concern.

Seate Engineer. In October 1931, Mr. W. B. Steele, of Callenders' Cable and Construction Company, who had worked for some months in Bahrain as the Company's executive engineer, was appointed as Seate Engineer to the Bahrain Government. From that date Callenders' ceased to work the electric supply in Bahrain, and the Government also took over all wiring and installation work which has produced a small profit, although the price was kept low in order to encourage consumers. The loss in 1350 (1931-32) was Rs 32,000/-, of which Rs 27,000/- was depreciation. The expenditure during the year included several non-recurrent items such as passages for Callenders' engineer, rent of house, etc. The actual loss on running was about Rs 3,000/-

Progress. In 1351 (1932-33), though the revenue increased by approximately Rs 5,000/-, there was a loss on running of Rs 5,800/-, not including depreciation which amounted to Rs 20,000/-. A small showroom was opened at the office of the Electric Department for the sale of electrical apparatus. Although the number of lights increased

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considerably, there was not a corresponding increase in revenue owing to the use of cheap low-power Japanese lamps which were bought by the public in place of the more powerful lights which had originally been installed.

In 1352 (1933-34) there was a further increase in revenue: 415 more points were connected and power was used for refrigerators, water-pumps, etc. The Electric Department acquired the sole agency for International General Electric Company's refrigerators which, after experiments with other makes, were found to be the most satisfactory. The increase continued through 1353 (1934-35); revenue from sale of energy amounted to Rs 6,000/- more than during the previous year, but, unfortunately, owing to an experiment which was made by a temporary engineer, there was a loss of over Rs 5,000/- on wiring. A reduction in the price per point resulted in wiring being carried out by the department at an actual loss, and the amount involved was considerable, as the department had undertaken a large amount of wiring work for the Bahrain Petroleum Company in addition to the normal work in Manamah and Muharraq. A large quantity of material was ordered at the same time in expectation of wiring orders which did not materialise.

First Profitable Year.

In 1354 (1935-36) the Electric Department made a profit of Rs 4,800/- after covering all charges including depreciation. Sixty new premises were wired, 302 lighting points and 33 fans were installed, and the load increased by 27 kilowatts. The department carried out all the wiring work for the naval base at Jufair and also put in a land telegraph line from the wireless office to the terminus of the subterranean cable on the coast west of Manamah.

In 1355 (1936-37), the seventh year of the undertaking, the net profit was Rs 16,757/-, the load increased by 58 kilowatts, and 91 new premises were wired. A new one-ton ice plant was installed, the existing supply being found insufficient for local requirements, and indications appeared that the public were beginning to use electric power commercially, for example, in carpentry, etc. A three-phase line and underground cable was run from Naim to the new direction-finding station installed by Cable & Wireless Limited, and underground mains replaced the overhead lines in the customs square. During the winter months the generating sets were run continuously, for the first time, in order to encourage the use of power appliances.

Future Prospects.

It can be reasonably assumed that during the next two or three years the load will increase. There are still a large number of houses which are not provided with electric light, and all new houses, especially those which are built for letting, are nowadays fitted with electric light. During the last year the two engines have frequently been running at the same time in order to cope with peak loads. This is undesirable and dangerous. It is now proposed to instal a third engine consisting of one 300 BHP Mirrlees set which will obviate any possibility of a breakdown and which will provide for future expansion.

A reduction in the rate charged for heating appliances was made during 1355 (1936-37), but it has not yet been possible to reduce the cost of the unit for lighting or cost of power for other purposes. It may be possible to effect a reduction during the year 1357 (1938-39).

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Telephone System.

In 1351 (1932-33) a public telephone was opened in Manamah, and by the end of the first year twelve lines had been connected and two were in course of erection. The telephone exchange was installed in a room above the Police Station, which was both a safe and central position. Two young men from the schools were trained by the State Engineer as operators. The yearly rent for a telephone, with an unlimited number of calls, was Rs 150/-, which was reduced after two years to Rs 125/-, as it was found possible to reduce the rent and still allow a small profit from the undertaking.

In 1353 (1934-35) an extension of the telephone system was run from the exchange to the aerodrome in Muharraq in conjunction with the Imperial Airways Company, which paid for this additional line. In 1354 (1935-36) the exchange was connected to the Bahrain Petroleum Company Limited telephone system by a trunk line, and another line was erected to the naval base at Jufair. In 1355 (1936-37) a new exchange of 25 lines was installed in Manamah, and a day and night service was instituted. At the end of 1355 (1936-37) it was decided to connect the

nama, Muharraq and Hedd and the 3 villages of East and West Rafaa and Sakhir was less than 1 per cent.

Social Economy

Prior to the opening of the Bahrain oil fields, the economy of the islands was based upon pearl fishing and the transshipment of goods between Iran, India and other countries and the neighboring Arabian ports. The waters of the Persian Gulf contain famous pearl fishing banks, and, since ancient times, Bahrain has been recognized as the traditional center of the industry. It constituted the principal source of wealth for centuries, but it reached a low level in the 1920s, due in part to the competition of Japanese cultured pearls in the world markets. Early records are nonexistent, but the former Bahrain pearl fleets probably consisted of 600 to 1,000 vessels. The number has declined progressively: only 83 departed for the banks in 1950. In that year, about 2,000 Bahrainis were engaged in pearl fishing during the season from mid-April to October, undoubtedly a fraction of the total employed when the demand for pearls was at its height.

In previous decades, dhow building also was one of the major industries of Bahrain, but its decline has paralleled that of the pearl fisheries. Nine boats were constructed in 1949, as against 100 reported in 1928-29.

Today, oil is the foundation of Bahrain's prosperity. The royalties derived from the industry not only have bolstered the declining resources of the government, but have made possible the expansion of public works and social services. Operations are conducted by the Bahrain Petroleum Company, Ltd., which holds long-term concessions from the Sheikh of Bahrain for the development of the petroleum resources of the islands. Oil was discovered in the Jabal ad Dukhan region, near the center of Bahrain Island, in 1932, and production started in 1934. The proven reserves of this field are estimated in the neighborhood of 200 million barrels. The company also operates a

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
BAHRAIN M22

342 flat roofs, surrounded by parapets. Those with two or more stories sometimes have broad balconies.

342 571 In the towns, the poorer people often occupy multifamily houses in the older, congested districts or live in hut settlements on the outskirts. The huts, known locally as *barastis*, are made of bamboo or date-stick poles interwoven with palm leaves, and roofed with palm-leaf matting. They are frequently grouped within pole and matting stockades, the individual huts being separated by narrow alleys. Of the 5,703 houses 342 counted in the town of Manama at the time 571 of the 1950 census, 2,608 were of palm-leaf 361 construction. Although the standards of living have improved among the laboring classes within recent years, most of the rural inhabitants dwell under primitive conditions, as did their forefathers. Palm-leaf huts predominate in the date garden and the fishing villages. They are admirably adapted to the heat of summer, but afford poor protection against the occasional cold winds.

186 361 663 342 The rural Baharna and Arabs live apart in segregated villages, and even in the towns there is a tendency for the different racial and religious groups to form distinct communities. The Bahrain Petroleum Company has created a self-sufficient modern settlement for its British and American employees at Awali, on the edge of the oil field area. The development of modern housing projects is also being promoted by the government, and plans are under consideration for the demolition of certain slum areas and the erection of low-rental dwellings.

ENVIRONMENT AND SANITATION

Water Supplies

312 The fame of the sweet-water springs of Bahrain stems from ancient times, and undoubtedly contributed to the early development of Manama as a trading center. No only do abundant sources of water exist in the oases along the northern end of Bahrain

64: Shwadran S-4 (no date) 1955 M1 Middle East
Bahrain M22

one went to the Sheikh for the maintenance of his household and family; one was for current Government expenses and development projects; and one for investments abroad as a reserve for future contingencies. With the increase in income—directly from oil revenue and indirectly from customs duties—as a result of the Company's activities, Government services increased and a number of development projects were undertaken. By 1951 there were three hospitals on the islands—the American Mission Hospital and the Company hospital mentioned above, a Government hospital for men and women operated by a British staff, including a section for the mentally ill—as well as a number of municipal clinics. General health conditions were not good: malaria and other fevers and dysentery were prevalent; bilharzia, trachoma and hookworm took a heavy toll; and above all, a large proportion of the population was infected with venereal diseases. Medical services were supplied to every Bahreini free of charge.

Though there had been some educational facilities before the development of the oil industry,[22] it was not until 1934 that the Government engaged a number of Iraqi teachers and enlarged the facilities. By 1951 there were nine elementary schools, one secondary school, founded in 1940, and one school for girls opened in 1939, all tuition-free. The schools were staffed with 258 teachers, who instructed some 6,000 boys and girls. The Government, in conjunction with the Company, also provided scholarships to graduates of the secondary schools for study abroad.

The Government built roads, bridges, harbors and a large airport; water was supplied from artesian wells instead of being brought in by boat; and efforts were made to improve housing conditions. Though without a single newspaper in 1951, Bahrein had a broadcasting station, built in 1940 for Allied war purposes, a dial telephone system, forty miles of roads and 2,000 automobiles. Most of the streets of the main towns were electrically lighted, and a sewerage system had been installed. The net result was a higher standard of living for the Bahreinis, not only in comparison with their own pre-oil standard, but also with the people of the neighboring states.[23]

[22] In 1926 there was one school for boys only, and it was poorly attended. James Bell, "He Said Forward! to the Backward," *Life*, Nov. 17, 1952.
[23] U.N., *Summary 1952-53*, 58-59; Sanger, *The Arabian Peninsula*, 148-149;